

**Tetra Tech, Inc.**

4213 State Street, Suite 100
 Santa Barbara, CA 93110-2847
 VOICE (805) 681-3100 FAX (805) 681-3108

Project: **Vandenberg Air Force Base IRP**
 Log of Well No. **40-MW-4**

Location: **OU4, Site 40, SLC 1W, immediately south of concrete pad.**

Date Started: 12/21/93 Completed: 12/27/93

Logged By: **Elliot/Bonebrake** Checked By: **J. R. Steele, R.G., C.E.G., C.H.G.**

Drilled By: **A. Simones, S/G Testing**

Drilling Equipment: **CME 75, 8"/10" HSA**

Sampling Equipment: **2" ID Split Spoon**

GS Elev.: **126.5 ft above MSL** TD: **95.0 ft. bgs**

4" PVC Blank Casing: from **0 ft bgs** to **74 ft bgs**

0.020" Screening Casing: from **74 ft bgs** to **94 ft bgs**

Bentonite/Cement Grout: from **2 ft bgs** to **69 ft bgs**

Bentonite Transitional Seal: from **69 ft bgs** to **72 ft bgs**

#3 Sand Filter Pack: from **72 ft bgs** to **95 ft bgs**

TOC Elev.: **127.75 ft above MSL**

Depth (ft. bgs)	MATERIAL DESCRIPTION	Material Symbol	Material Type	Well Construction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
	<u>sand</u> , brown (10YR 5/3), fine to medium grained, well sorted, subround medium dense, slightly moist, trace gravel- size shale fragments, dune sand.		SP			2	83	0/0.0	Sample V40MW4-0 sent for chemical tests.
	brown (10YR 4/3), fine grained, less shale, fragments, loose.					5			
						7			
5						3	78	0/0.9	Sample V40MW4-5 sent for chemical tests.
						4			
						4			
10	no shale fragments, very dense.					4	89	0/0.0	
						9			
						15			
15	slightly moist to moist.					8	100	0/0.0	Sample V40MW4-15 sent for chemical tests.
						21			
						31			
20						7	100	0/0.0	
						31			

81.7 ft. bgs. Groundwater depth during drilling

81.5 ft. bgs. Groundwater depth after well development on:

TC Number: **7001-41**

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20	brown (10YR 5/3), fine grained, subangular to subround, slightly moist.		SP						
25	minor iron staining.					9 36 5.5/50"	100	0.0/ 0.0	
30	very pale brown (10YR 7/3), subround to round, trace subangular.					12 46 43	100	1.0/ 3.6	Sample V40MW4-30 sent for chemical tests
35						2 12 30	100	0.0/ 2.2	
40	very fine to fine grained.					5 24 38	100	0.0/ 0.5	
45									

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45			SP			5 21 38	100	0/0.4	
50	fine grained.					4 29 44	100	0/0.0	
55	trace silt, moist.					4 19 38	100	0/0.0	Sample V40MW4-55 sent for chemical tests
60						4 18 38	100	0/0.0	
65	light yellowish brown (10YR 6/4), trace silt.					9 28 50/6"	100	0/0.0	
70									



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70			SP			11	100	0/0.0	
	silty sand, brown (10YR 5/3), fine grained, well sorted, subround to round, very dense, moist, trace angular chert gravel, Orcutt Formation.		SM			21			
						30			
75	sand, dark yellowish brown (10YR 4/6), fine to trace medium grained, well sorted, subround to round, trace subangular, very dense, moist, minor silt, Orcutt Formation.		SP-SM			11	100	0/0.0	Sample V40MW4-75 sent for physical tests.
	silty sand, light yellowish brown (10YR 4/6), fine grained, well sorted, round, very dense, dry to slightly moist, Orcutt Formation.		SM-ML			25			
			SP-SM			29			
	sand, dark yellowish brown (10YR 6/4), fine to trace medium grained, minor silt, well sorted, subround to round, trace subangular, very dense, moist, Orcutt Formation.								
80	yellowish brown (10YR 5/6), very moist.					13	100	0/0.0	Sample V40MW4-80 sent for chemical tests.
						30			
						44			
	silty sand, yellowish brown (10YR 5/4), fine to trace medium grained, well sorted, subround, very dense, wet, Orcutt formation.		SM			6	100	0/0.0	
						22			
						38			
85									
90									
95									